

Virginia Saltwater Development Fund Evaluation of a Proposal for the Development of a Research or Data Collection Project

Project Number: F

Date: August 29, 2008

**Title: Migrations of adult summer flounder from Chesapeake Bay:
implications for stock structure**

Code of Virginia, Section 28.2-302.3

NOTE: Please read the entire scoresheet before beginning, then provide comments, and circle () the appropriate score for each item. Thank You.

A. Problem Description and Resolution (20 points)

1. Comment on the adequacy of the problem description, background information, knowledge of available literature/data sources, and anticipated benefits.

Monitoring summer flounder movements and locations (depth, temperature regime), using data storage tags, is similar, but more advanced than other tag-based studies. Other studies often focus on recaptures, while this study aims to characterize movements and habitat use, with the importance value of the recaptures tied to the data stored on the tag. The investigators provide a step-by-step approach of how this study can be conducted, from tagging to statistical data analysis. The initial background section ("need") is general, in its treatment of migration, but it does underscore the need to better define migration patterns of summer flounder. Overall, the investigators highlight a number of key past studies of migration that indicate somewhat of a progression in knowledge of the timing of the spawning migration from the Bay and even rough estimates of the overwintering fraction of the stock. For the adult portion of the stock, there are charted distributions of adults (>28 cm TL) provided for coastal areas (NOAA Technical Memorandum NMFS-NE-151), but estuarine distributions are not readily apparent. Certainly, a good data source, for this proposal, concerns an earlier investigation of localized movements of summer flounder, using passive acoustic arrays. This past study involved the same principal investigator (Dr. Mary Fabrizio), as for this proposed study, and was funded by the Commission, according to the recommendation of the Recreational Fishery Advisory Board. The past study elucidated within-

systems movement of summer flounder, as well as dispersed (from Back River) patterns.

Proposed anticipated benefits include (1) a more in-depth characterization of summer flounder migration and habitat characteristics, as well as, a better characterization of the stocks that utilize the Chesapeake Bay. Notably, the investigator describe potential benefits as “increased understanding”, for benefit 1) and “improved” knowledge for benefit 2), and these seem realistic expectations.

2. Describe your views on the conceptual approach to solve the problem.

The investigators provide a systematic approach, in their proposal, to finding out more about migration and habitat locations of summer flounder. The tagging approach is detailed, and the investigators will take precautions to ensure the highest probability of tag returns. The reward scheme has worked with other species, and there probably would be close to a 15% tag-return rate.

SCORE (Circle one)	Poor				Excellent
	0	5	10	(15)	20

B. Soundness of Project Design/Technical Approach (25 points)

1. Is there sufficient information to technically evaluate the proposal?

The investigators provide sufficient information on capture and tagging expectations, expected locations of the summer flounder, (according to temperature and depth histories of individual fish) into 4 migration groups, to allow for some testing of stock difference among the 4 designated migration groups.

2. What are the strengths/weaknesses of the project design (thoroughness, practicality, methods, integration with other work, etc.)?

This project will provide additional “snapshots” of migration of the species and will provide quasi-quantitative estimates of Chesapeake-specific overwintering summer flounder. The previous study by Dr. Fabrizio is a strength, as many elements of this proposed study have been “field tested”. The analytical approach may be somewhat limited, as non parameter tests do not provide a measure of statistical significance. Designating summer flounder to 1 of 4 groupings is not arbitrary, but some fish will be borderline inclusions in one group or another, and that can influence the statistical results.

SCORE (Circle One)	Poor	Excellent
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0 5 10 15 (20) 25

C. Project Management and Experience/Qualifications of Personnel (15 points)

What is your opinion of the experience and capabilities of the Principal Investigator(s) to manage and conduct the work, the availability of facilities, and education and experience of assisting personnel.

Dr. Fabrizio is well published. I read through her report from RFAB Grant # V771030, and it is a very comprehensive report. I'm not familiar with Mr. Henderson's past studies. The VIMS facilities are of a high caliber, but this is mostly a field oriented study.

SCORE (Circle one)	Poor			Excellent
	0	5	10	(15)

D. Project costs (15 points)

Is the budget realistic and reasonable? Indicate any unreasonable costs.

The budget is very reasonable. Dr. Fabrizio will pay for ½ of the tags and has requested funding for only 22 rewards, although that is only a 12% reward rate and there is a good chance the return rate will be higher. A large part of the budget will be dedicated to supplies (tags, laboratory supplies, equipment and fuel for boats). A \$200 reward is higher than what I am familiar with, for these types of studies but I'm certain it will result in tag returns.

SCORE (circle One)	Poor			Excellent
	0	5	10	(15)

E. Value of the Project to Fisheries Managers (25 points)

Do you believe the results of this project will further management of the species described? Will the results be useful to managers?

Any improvements in management's understanding of life history characteristics of summer flounder is important. There may be a limited amount of information on stock status resulting from this study, and, that could eventually (more studies, larger scale) lead to important management scenarios (effective seasonal and area closures as applied to traditional management by size limit manipulations to the traditional by size limit manifested).

SCORE (circle one)	Poor					Excellent
	0	5	10	(15)	20	25

**PLEASE ADD ANY FURTHER COMMENTS ON THE PROPOSALS
BELOW:**

The investigators plan to tag fish in August. Is that August 2009?